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To those involved with the ENERGY STAR® V2.0 Roof Specification Final Draft please find the comments from 3M Company. 3M is the world's largest supplier of color coated granules for use in asphalt shingles for the steep slope roofing market. We have worked in support of Energy Star goals for a number of years to develop and make available to the asphalt shingle market a line of new products called the 3M™ Cool Roofing Granules. These products are available in a variety of colors that provide shingle manufacturers with options in meeting the initial Energy Star reflectance criteria for steep slope roofing. However, even with this new technology shingle manufacturers are faced with a considerable restriction in the range of designs and looks that can be achieved that meet or exceed this 0.25 initial reflectance standard. 3M believes that any new Energy Star specification for Roof Products should seek to further the take-up of these products by American consumers by ensuring the qualification of a full range of roofing products to meet consumer needs.

In the past a loophole has existed that allowed products with high reflectance but low emittance to unfairly qualify for the Energy Star label. The proposed changes include adding the criteria that roofing products have an emittance of 0.75 or higher. Since energy performance in roofing products is directly affected by both solar reflectance and thermal emittance, specifying both is necessary to insure that all Energy Star certified roofing products meet or exceed a minimum level of energy performance. If fairly and uniformly applied to all competitors, we applaud these efforts to improve the integrity of the Energy Star criteria for steep slope roofing.

More specifically, 3M supports and encourages the introduction of this proposed thermal emittance criteria for all roofing types. We agree that the combination of both solar reflectance and thermal emittance gives a more accurate and complete picture of a roof's ability to reduce the energy consumption associated with air conditioning. We agree that the solar reflectance index (SRI) is useful as a combined metric of these two factors. We agree with the choice of an initial SRI value of greater than or equal to 18 and a maintenance SRI value of greater than or equal to 4.

However, we question the inherent unfairness created in the market place by the proposed selective application of the SRI alternative to only allow flexibility for those products that can't meet the proposed emittance standard because this fails to recognize a wide range of roofing products with equal or better energy performance. (See the inserted excerpt from the final draft pointing out the language of concern.)

Excerpt from Table 2 in the draft spec from EPA

SRI Alternative (to be used if roof product cannot achieve required thermal emittance value)

Instead, we would support the inclusion and use of the SRI alternative if it was allowed to be used such that products can use higher reflectance to offset lower thermal emittance and products can use higher thermal emittance performance to offset lower reflectance so long as they meet or exceed the stated initial and maintenance SRI values

We do not agree that the goals of the Energy Star program are served by allowing one roof product with an initial SRI value of 18 or more and a maintenance SRI value of 4 or more to be denied the Energy Star label while another product with the same SRI values receives the Energy Star certification. Both roofing products provide the building owner with the same energy savings opportunity since by definition of the SRI metric products with the same SRI value provide equivalent energy performance regardless of the individual thermal emittance and solar reflectance values.

We therefore propose the final draft be amended such that the SRI alternative either be completely removed or, preferably, modified so as to be available to allow unqualified use of the SRI alternative so long as the stated initial and maintenance SRI values are met or exceeded.

3M is a committed partner to the Energy Star program and we believe that the inclusion of these changes in the proposed final specification will allow both the program and American consumers to benefit by more competition and an increase in energy efficient technologies in the marketplace.